

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Friedrich Arnold et al.
Application Number: 10/532,255
Filing Date: 04/21/2005
Group Art Unit: 3744
Examiner: Chen Wen Jiang
Title: PROCESS AND DEVICE FOR MONITORING
TEMPERATURE IN A REFRIGERATOR

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE D
REQUEST FOR RECONSIDERATION

Dear Sir:

In reply to the Office Action dated July 13, 2009, reconsideration and withdrawal of the rejections is respectfully requested.

The Office Action rejects claims 13-22, 27, 28 and 31 under 35 U.S.C. 103(a) over U.S. Patent No. 5,004,355 to Ryan ("Ryan"), in view of Japanese Application No. 59-230128 to Takahashi ("Takahashi"). The Office Action also rejects claims 23, 24, 29 and 30 under 35 U.S.C. 103(a) over Ryan, in view of Takahashi, and further in view of U.S. Publication No. 2003/0147450 to Witonsky ("Witonsky"). Because the combination of references is improper, the rejections are respectfully traversed.

Ryan discloses a temperature measuring apparatus which includes a thermometer 12 which is mounted inside a receptacle 20. As shown in Figs. 1 and 2 of Ryan, a cap 28 on the receptacle 20 includes a sealable aperture 30.

The thermometer is inserted through the aperture 30 so that the bulb and lower portion of the thermometer 12 are immersed in a liquid bath 32 within the receptacle 20. The receptacle 20 and thermometer 12 are then mounted inside a cover member 36 which is sealed with a cap 42. The cover member 36 with the enclosed receptacle and thermometer are then mounted on a holder 44 which can be attached to the interior of a refrigeration unit.

The Takahashi reference discloses a temperature sensing device which is intended to determine the temperature of a water bath. More specifically, the device is intended to indicate multiple different temperatures at multiple at different depths within the water bath. As shown in Fig. 1 of Takahashi, a plurality of temperature sensing devices 1/4 are attached along a string 2 which is attached to a float 3. Each of the temperature indicators 1/4 changes color at a certain temperature to provide an indication of whether the water surrounding the temperature indicator is above or below a predetermined temperature. Because the temperature indicators 1/4 are aligned along a string 2 which descends down into the water within a bathtub, each of the temperature sensors 1/4 is located at a different depth within the water. The user can note the colors of the various temperature indicators to learn the temperatures at different depths within the water.

The Office Action appears to suggest that one of ordinary skill in the art would have found it obvious to modify the Ryan temperature sensing device, based on the teachings of the Takahashi reference, to arrive at a temperature monitoring process as recited in independent claim 13, or a unit for monitoring the temperature in a refrigerator as recited in independent claims 17 and 27. Applicants respectfully disagree.

The temperature measuring apparatus disclosed in Ryan already includes a thermometer which provides a very specific indication of the temperature of the liquid 32 within the receptacle 20. Because Ryan uses a thermometer, the

temperature measuring apparatus provides an exact indication of the actual temperature of the liquid 32.

The temperature sensing devices in the Takahashi reference change color when the temperature transitions through a predetermined temperature range. For instance, Takahashi discloses that the temperature sensing elements would change color between 40°C and 45°C. Thus, the Takahashi temperature sensing devices only provide an indication about whether the temperature of the surrounding liquid is above or below a predetermined range. Takahashi's devices do not provide any indication of the exact temperature. The temperature of a water bath could be 2°C or 39°C, and the temperature indicators would look the same. Likewise, the temperature in the water bath could be 41°C or 99 °C, and the temperature indicators would look the same.

One of ordinary skill in the art would not have been motivated to replace Ryan's thermometer with a temperature sensing indicator as disclosed in Takahashi because doing so would reduce the effectiveness, accuracy and usefulness of the Ryan temperature measuring apparatus. Specifically, once that substitution is made, Ryan's temperature sensing apparatus would no longer be able to provide an indication of the actual temperature of the liquid within the device. As said, the device would only provide an indication about whether the temperature of the liquid is above or below a predetermined range. Thus, making the suggested substitution would actually reduce or eliminate the overall utility of Ryan's temperature measuring apparatus. It is respectfully submitted that it requires the improper use of hindsight, in view of Applicants' own invention, to find any motivation to substituting the Takahashi temperature indicators for the thermometer disclosed in Ryan.

In view of all the foregoing, it is respectfully submitted that the combination of Takahashi and Ryan is improper. For at least these reasons, withdrawal of the

rejection of claims 13-22, 27, 28 and 31 over Ryan, in view of Takahashi, is respectfully requested.

Claims 23, 24, 29 and 30 are rejected over Ryan, in view of Takahashi, and further in view of Witonsky. As noted above, the combination of Ryan and Takahashi is improper. For at least these reasons, it is respectfully submitted that the rejection of claims 23, 24, 29 and 30 is also improper, and that this rejection also should be withdrawn.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. If the Examiner has any questions regarding this application, the Examiner is requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

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